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Book Review

A SCIENCE OF BEHAVIOR AND MODIFICATION A REVIEW OF ALAN KAZDIN'S *HISTORY OF BEHAVIOR MODIFICATION*[1]

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After an introductory chapter, the first half of Kazdin's book concerns the history of behaviorism, applied and theoretical, while the second half describes the recent applications. The scope of the book is defined as overt behavior that can be described by learning principles as opposed to "inferred psychological forces that underlie it." Although Kazdin states that the emphasis is on the use of "rewards and punishments" to influence behavior, a la Skinner, the actual content of the book ranges far from objective treatments of behavior. There is a large chapter on cognitive behavior modification that seems more related to psychodynamic psychology than to behaviorism, except for its opposition to the medical model.

Chapter 2 introduces the reader to the enemy, mainly in the form of psychiatry, the medical model, and psychodynamic theory. It contains a brief introduction to Freudian theory and psychiatric diagnosis, a critique of these, an exposition of the ineffectiveness of psychodynamic therapy compared with behavior modification, and a brief review and criticism of institutional treatment.

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[1]Baltimore, Maryland: University Park Press, 1978.

Editor's Note: On February 3rd, 1981, Charlie Ferster died. His wife, Elyce Zenoff Ferster, sent me this review with a note saying that it was the "last thing he wrote." I am very pleased to be able to include it in this issue of *The Behavior Analyst.*

Chapters 3 and 4 give an account of the basic scientific research and theory from which behavior modification is to emerge. In the one chapter approximately equal space is given to the late 19th- and 20th-century Russian studies of the reflex, Watson's transmission of Pavlov's work to the American psychological community, and a description of the "learning positions" of Guthrie, Thorndike, Tolman, Mowrer, and Hull. The next chapter presents Skinner's major concepts and experimental findings as presented in *The Behavior of Organisms, Schedules of Reinforcement,* and some of the current literature. Chapter 5, near the end of the historical presentation, recounts the emergence of behavior modification. First, there is the experimental neuroses of Pavlov's dogs, Watson's experiments with Albert, Mowrer's treatment of enuresis, Dollard and Miller's exegesis of psychodynamic psychology, and the early demonstrations by Greenspoon that the listener's reaction influenced the behavior of the speaker. Then, the latter part of the chapter details the emergence of desensitization therapy by Wolpe and the Maudsley group, the development of aversion therapy in the United States, and a final section on Skinner's influence through the pioneer work of Ogden Lindsley's token economy experiment and Bijou's work with children.

The remaining half of the book gives the present state of the art. Chapter 6 presents contemporary behavior modification, Chapters 7 and 8 applied behavior analysis, Chapter 9 cognitive behavior modification, and Chapter 10 legal and ethical issues of current concern. These latter chapters review the currently

accepted practices and concepts in a clear and useful presentation much as books like Rimm and Masters (1974) and Leitenberg (1976) do. The writing, as we have come to expect from Kazdin, is fluent and there is enough redundancy to carry the reader along. For those whose espousal of behaviorism carries an emotional lift, reading this book will be stirring. The informal parts are the most interesting. Kazdin set up telephone interviews, in preparing the manuscript, with persons (including this writer) who had contributed to the field in the recent past. Included are personal histories of Eysenck, Skinner, and Wolpe, accounts of the environment at the Maudsley in England, and a review of meetings, journals, and publications that highlighted the particular field at the time the behavioral work was emerging.

Quite sophisticated treatments are given to the elucidation of basic operant and conditioned reflex research considering the overall, small amount of space alloted to it. It is unlikely, however, that the reader can appreciate these coverages unless he/she already has considerable knowledge of these fields.

Writing a history such as Kazdin has attempted surely is a hugely difficult task. First, there is the inevitable tension because the historian needs to understand the events technically and is therefore likely to be a person who has an investment in one point of view rather than another. Kazdin has a clear, determined view that behavior modification is a reaction to conventional psychotherapy and the medical model and an attack that should overcome them. A second difficulty inherent in the history is its recency. Although there are references to Russian experiments around the turn of the century, most of the events cited, apart from Pavlov's work, occurred since 1950. Intense personal involvement is to be expected with such a recent history so we can understand why there is no dispassionate looking back. Kazdin has taken the course of arguing for one side and in doing so he probably has not represented the other viewpoints objectively. For example, the simple assertion that psychodynamic therapy is ineffective while behavior modification "works" is based almost entirely on Eysenck's report published in 1952. Yet, this publication would not meet the standards set by Rimm and Masters (1974) nor those of the host of clinical writers who have criticized these experiments. In the same vein, there is an emerging literature of some substance, such as Smith, Glass, & Miller (1980), that questions the data presented by Levitt (1957), so frequently cited as proof of the ineffectiveness of conventional therapy with children. At best, such research is difficult. A history of an enterprise like psychodynamic psychotherapy is surely a difficult and involved task. Although I do not speak for or even advocate psychodynamic conceptual systems, it is important to note that large changes in theory and practice have occurred since Freud. Even after acknowledging the disadvantages of psychodynamic mentalism, Kazdin's account would be taken as a burlesque of it by those knowledgeable in the area.

The reader who expects a natural science account of behavior that provides a point-to-point correspondence with behavior modification practices will be disappointed. Despite Kazdin's insistence that the defining characteristic of behavior modification is its derivation from a science of behavior, it is hard to justify the detailed accounts of Skinner's research and that of the Russian physiologists by their connection with the behavior modification procedures that emerged. Except for the general sense of reinforcement and extinction, it is difficult to see any relation between the technical details of these experiments and the behavior modification treatments. The section on verbal behavior is an illustration of this point. In place of the sophisticated account by Skinner in *Ver-*

bal Behavior is Greenspoon's experiment (Note 1) presented to disparage psychological testing and Rogerian therapy by pointing out that the tester's or therapist's reaction, without his knowing it, may influence the behavior of the patient. One might be tempted to find connections between Masserman's animal experiments and flooding, cognitive therapy and modeling; but there is no mention of this. It is not clear whether Kazdin is telling us that there is no connection or that they arose independently.

An even more important basic science omission is the absence of Skinner's (1938, pp. 33-43) concept of the generic nature of the response. The counterpart of this concept is the view of the operant as an integral unit, combining, inseparably, the performance and the reinforcer generating and maintaining it (Findley, 1966). Bar pressing, as an operant, is a class of behaviors defined by the reinforcer that increases its frequency—the click of the food dispenser. The first evidence of this missing concept is the criticism of psychodynamic formulations that cigarette smoking might be a result of excessive or insufficient oral stimulation in childhood. Yet we know that one behavioral topography may consist of functionally different operants depending on the reinforcer maintaining it (Skinner, 1953). A person might be running to an anticipated rendezvous or escaping a pursuer. If we view only the topography of the overt behavior we are, indeed, dealing with it "symptomatically." The functional analysis of depression (Ferster, 1973) reveals similar functional categories of behavior that can only be distinguished by the variables of which they are a function. Obviously, the treatment of a phobia or a depressed frequency of overt behavior will depend on a functional description including the reinforcer. We do not need to accept the Freudian epistimology to recognize that the same overt frequency of a performance may reflect very different behavioral processes in different circumstances.

It would have been interesting to compare the history of behavior modification with that of medicine where most major discoveries were serendipitous and anteceded the natural science that explained how they were successful. There, the role of natural science is the establishment of a close, detailed connection between treatment and the understanding from physiology, biochemistry, and physics about how it works.

It is puzzling why Kazdin did not separate the Pavlov-Watson-Wolpe lineage from that of Skinner, Lindsley, Allyon, Baer, Bijou, etc. One of Skinner's great contributions is a sufficiently detailed and empirical account of behavior that could distinguish the important differences between operant and respondent behavior. Perhaps the reason for blending these two lines is that the preoccupation with the opposition to the medical model, that they have in common, blurred the distinction.

To sum up, Kazdin's book will be an informative and reassuring statement for those committed to behavior modification. Those interested in a science of behavior will find much lacking.

REFERENCE NOTE

1. Greenspoon, J. *The effect of verbal and nonverbal stimuli in the frequency of members of two verbal response classes.* Unpublished doctoral dissertation, Indiana University, 1951.

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